

## **RNAi-BASED SENSORS AND METHODS OF USE THEREOF**

### **ABSTRACT OF THE DISCLOSURE**

**[0300]** Methods of using labeled interfering RNAs to detect and/or quantitate target mRNAs in cells are provided. Related compositions, systems, and kits are also provided. Caged interfering RNAs (e.g., photoactivatable interfering RNAs), methods of using such caged RNAs, and related systems and kits are also provided. Methods and compositions for introducing interfering RNAs into cells, using RNAs covalently associated with protein transduction domains and/or lipids, are provided. Also provided are methods and compositions for selectively attenuating expression of a target mRNA by controlling expression of an interfering RNA.